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THE FLOOD OF 1903 IN CENTRAL KANSAS.

By Alfred W. Jones, Kansas Wesleyan University, Salina.

Read before the Academy, at Manhattan, November 26, 1903.

IN the spring of 1903 an unusual pressure of cold air from the Northwest seems to have prevailed, causing weeks of terrific wind-, hail- and rain-storms over the Central West, and precipitating all its moisture, apparently, over this region, causing the Northeastern states an unprecedented drought.

The sleet-storm and freeze of April 29, that ruined a magnificent fruit prospect, seem to have precipitated the period of calamity. Following in rapid succession came tornadoes, hail-storms, and deluges of rain, and the elements appeared to have been warring with all their fury. Tornadoes occurred in Saline county May 20, 21, and 22, three days in succession, killing one person and injuring several others, doing much damage to stock and buildings. Hail occurred on several dates, but the hail that fell in the vicinity of Salina on May 22 was remarkable for the enormous size of the hailstones. Hailstones fell weighing from eight to sixteen ounces, and measuring as much as fourteen inches in circumference. Fortunately, during the fall of hail, there was very little wind, reducing the damage to a minimum.

But to return to the subject. The rainfall for May was as follows:

May 4	0.93 in.	May 22	1.02 in.
" 7	0.16 "	" 25	2.97 "
" 11	0.76 "	" 26	1.62 "
" 13	0.06 "	" 28	5.25 "
" 14	0.50 "	" 29	1.54 "
" 16	0.08 "	" 30	0.45 "
" 18	0.11 "	" 31	0.31 "
" 20	0.93 "		——
" 21	0.60 "	**Total for month**	17.33 in.

This is almost equal to the entire rainfall of the year 1901. The rainfall from May 20 to 29 was 13.93 inches, and while this was a great surplus of water, there was unquestionably much heavier local downpours at various places up the streams from here. Tuesday, May 26, Dry creek and Mulberry creek began overflowing all the bottom lands west of Salina and began to invade the northwest portion of the city of Salina. The Saline also began rising, which retarded the drainage of the Mulberry system. Wednesday the Smoky began to rise rapidly and the Solomon was already overflowing below. Thursday torrents of rain fell, filling all the creeks to overflowing. The Smoky was already overflowing and the waters spread over the bottom lands in every direction, and Friday and Saturday witnessed the greatest flood ever seen by white men in the valleys of Saline county. Probably two-thirds of the ground level of Salina was covered with water, and from roofs of high buildings or the hills one could look out over miles and miles of glistening, swirling water.

According to observations made by the first settlers of Salina, backed by Indian traditions, a flood probably even greater swept through the valley in 1844.

From the information gleaned from A. M. Campbell, of Salina, and other pioneers, old drift marks could still be seen in 1859 along the base of the bluffs and in timber that indicated a flood even higher than the recent one. But I am of the opinion that had the surface of central and western Kansas been covered with the hard buffalo-grass sod of forty years ago the water would have run off into the drainage channels with such rapidity that the same conditions existing last May would have produced a flood fully as great as the traditional flood of 1844.

Geologists and others have indulged in much speculation concerning the origin of the broad alluvial plains forming the valleys of the Smoky Hill and other streams, and said surely these insignificant streams never did this work. But I think in this year of 1903 the Smoky arose in its might to claim its own and demonstrate its right. Peculiar depressions that seemed to have no special functions as drainage channels became roaring torrents. The terrible havoc wrought by the flood in the valleys below Salina is too well known to be given space here, but I think a little consideration of the work of this one flood will convince any one that two or three such occurrences in a century would not require many thousand years to build up vast flood-plains, and I wish to call especial attention to the changes produced in the uplands. I have made collecting trips into certain regions of Ellsworth, Saline and McPherson counties almost every summer during the last ten years, and in revisiting several of these localities since the middle of July I have been astonished at the work of destruction among the hills.

The clays and shales became so softened by the long-continued saturation that landslides are in evidence everywhere among the hills with steep slopes and along the little canyons of the Dakota, and here and there great gullies are cut down the slopes. Flowing springs now exist where springs were unknown before; wells that had furnished but a scanty supply of water for years are now filled to a depth of many feet; dry creeks are now running streams; for example, Dry creek, by name, a tributary of Mulberry creek, west and southwest of Salina, has only carried water at seasons of heavy rains, but at this date is carrying a good running stream of clear water.

For weeks, and in some cases even months, water would seep into the cellars in the north part of Salina from the saturated soil, even where the surface seemed comparatively dry. Certain it is that we have had a great object-lesson on the power of water as a geological agent, and a few repetitions of the flood of 1903 would bring about vast changes in the topographical features of the state.